



GAIA RESOURCES

ClimateWatch and Citizen Science: Spatially Enabling the Environmental Community

Piers Higgs
Gaia Resources

www.gaiaresources.com.au





OVERVIEW

Overview

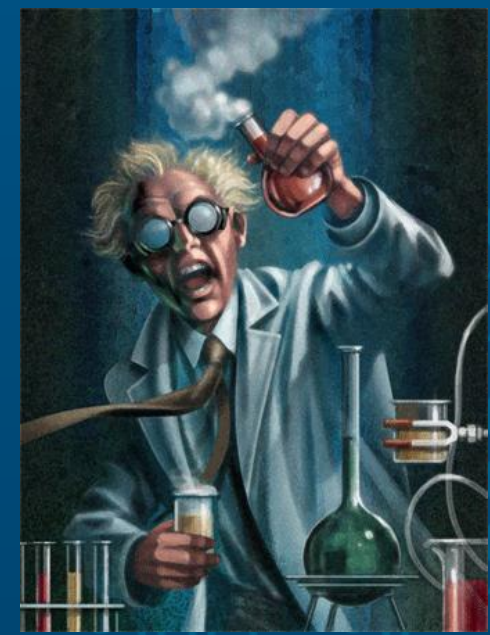
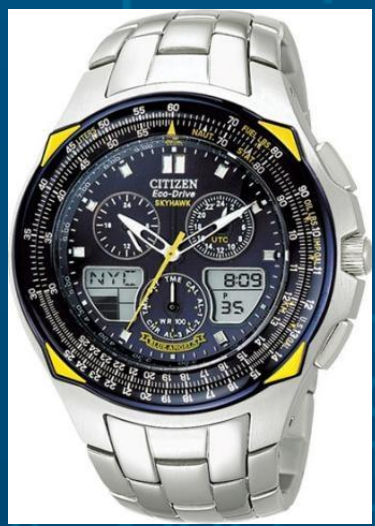
- Citizen Science
- ClimateWatch
- Atlas of Living Australia
- Spatially enabling the environmental community
- Thoughts for the future...





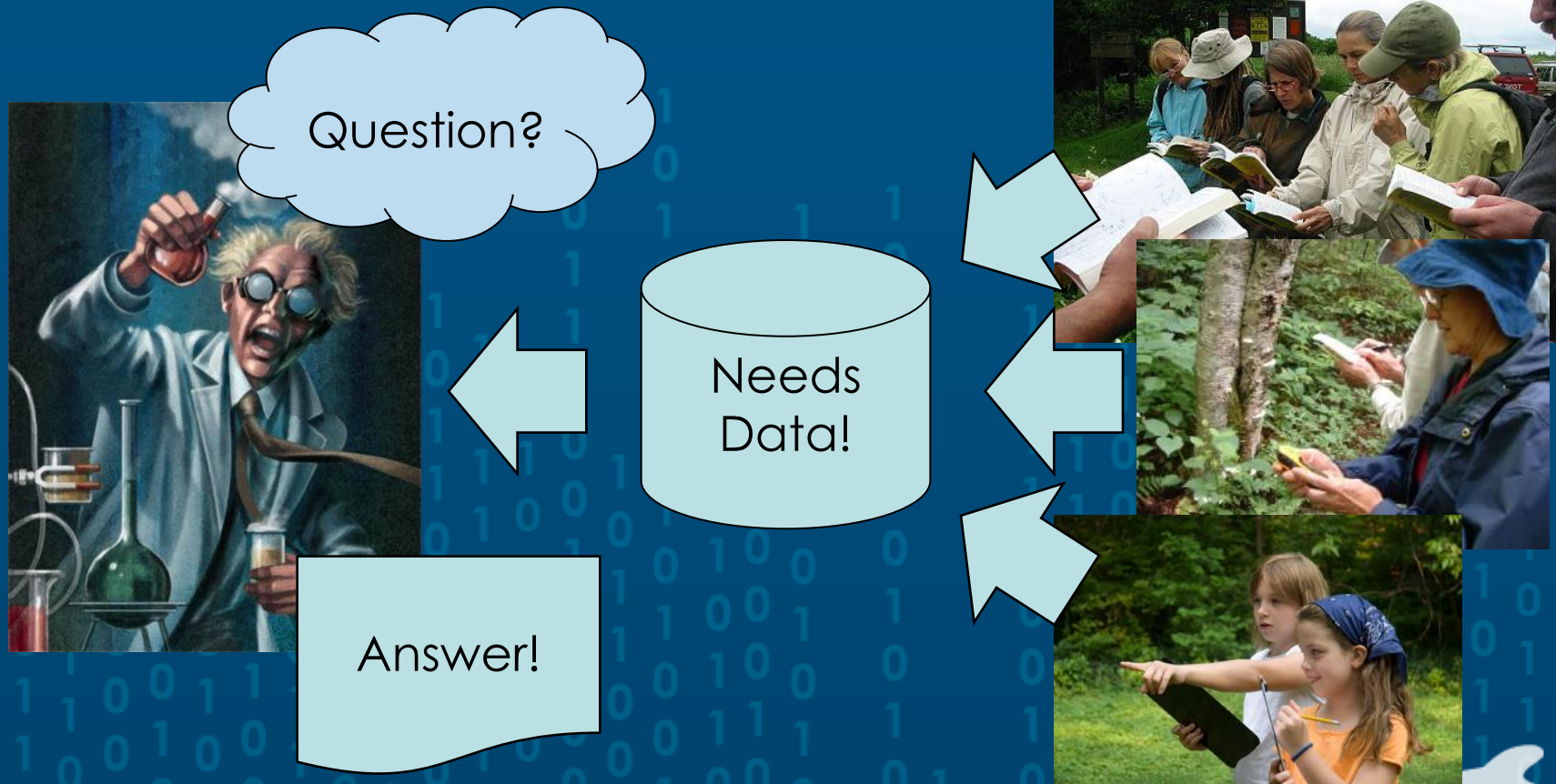
CITIZEN SCIENCE

Citizen Science explained...



CITIZEN SCIENCE

Citizen Science really explained...





CITIZEN SCIENCE

Citizen Science really explained...

- “Crowdsourcing of science”
- Particularly useful in providing:
 - Observation
 - Measurement
 - Computation





CITIZEN SCIENCE

Citizen Science really explained...

- Many examples of citizen science that work:



The nature's calendar survey





CITIZEN SCIENCE

Citizen Science really explained...

- Present two that we've worked on:
 - Climatewatch
 - Atlas of Living Australia



CLIMATEWATCH

Climatewatch



ClimateWatch
an initiative of Earthwatch Institute

Get Involved | Record Plants & Animals

McVee | Members Home | Logout

You are here: Home / Plants & Animals / Fill-necked Lizard



Program Partners



- About Us
- Get Involved
- Record Plants & Animals
- Sightings & Maps
- News
- Members Area
- Shop

You are not logged in. | Login

Contact Us

News

You are here: Home / News / News Headlines

News Headlines

Subscribe

ClimateWatch now in Western

Earthwatch Australia has launched their new ClimateWatch program in WA with Minister for the Environment, **Greg Watson**, becoming Western Australia's first ClimateWatch user.

ClimateWatch is a climate change monitoring program that will allow every Australian to be involved in collecting data that will help shape the country's scientific response to climate change.

Birds



Frogs



Insects



Mammals



Marine Animals



Plants



CLIMATEWATCH

What is it?

- Project developed by the Earthwatch Institute

“ClimateWatch is a climate change monitoring program that allows every Australian to be involved in collecting and recording data that will help shape the country's scientific response to climate change.”

- Launched nationally Sept 2009, in WA May 2010.

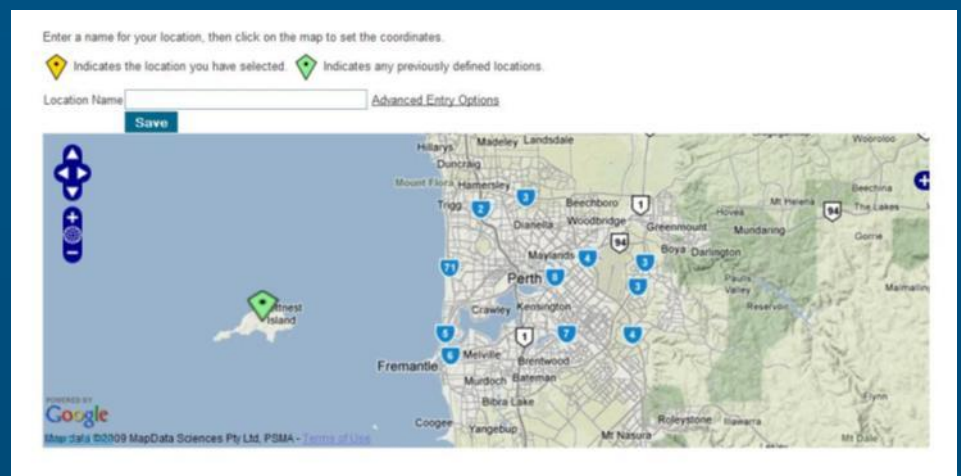




CLIMATEWATCH

Where is the spatial?

- Using spatial data and interfaces to streamline the entry of records from the public
- Every observation is spatial!
- Using OpenLayers, Mapserver, range of data - open source apps and data

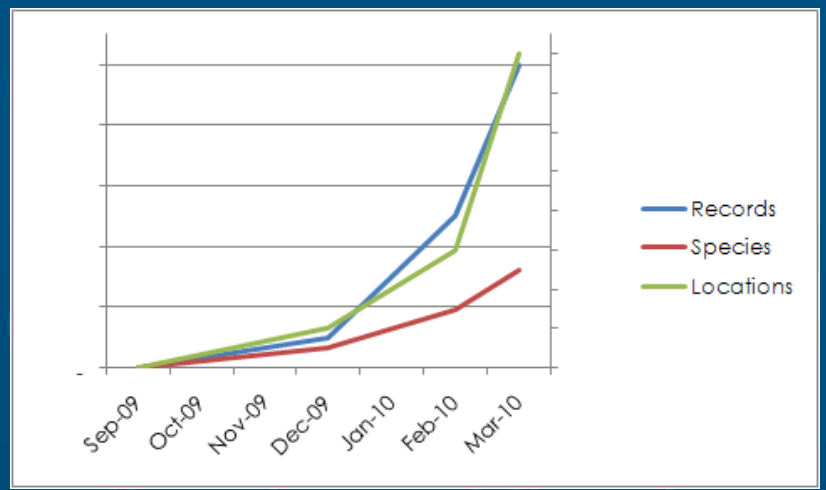




CLIMATEWATCH

Results

- Using the public to record information increases your data capture by large factor



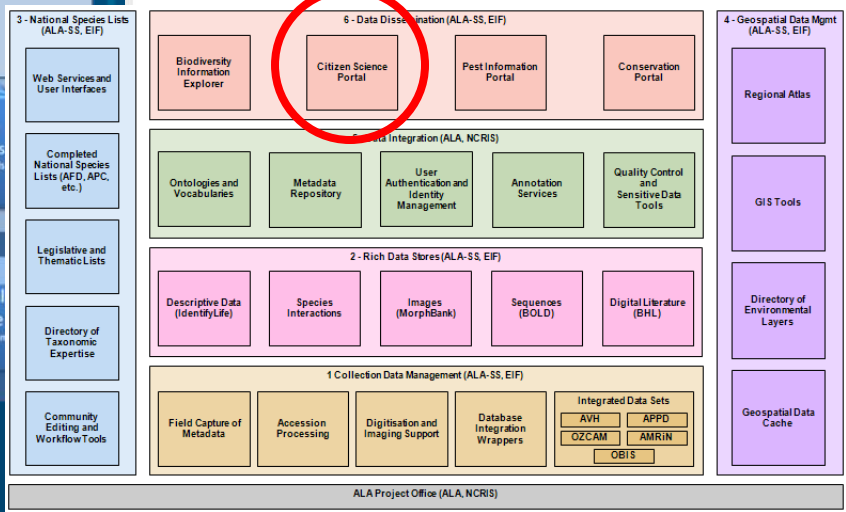
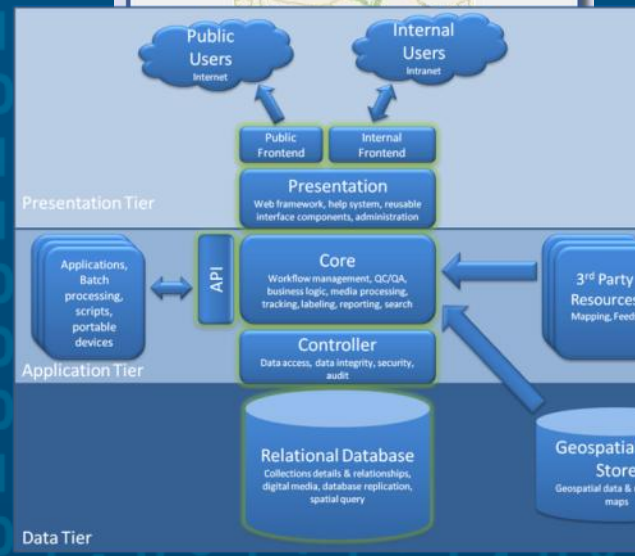
- What data from the public lacks in accuracy, it can make up for in volume – can add to analyses
- Automated – and spatial – verification helps!





ATLAS OF LIVING AUSTRALIA

Atlas of Living Australia



range of tools to assist in the process





ATLAS OF LIVING AUSTRALIA

What is it?

- Collecting biodiversity information and making it freely accessible online.

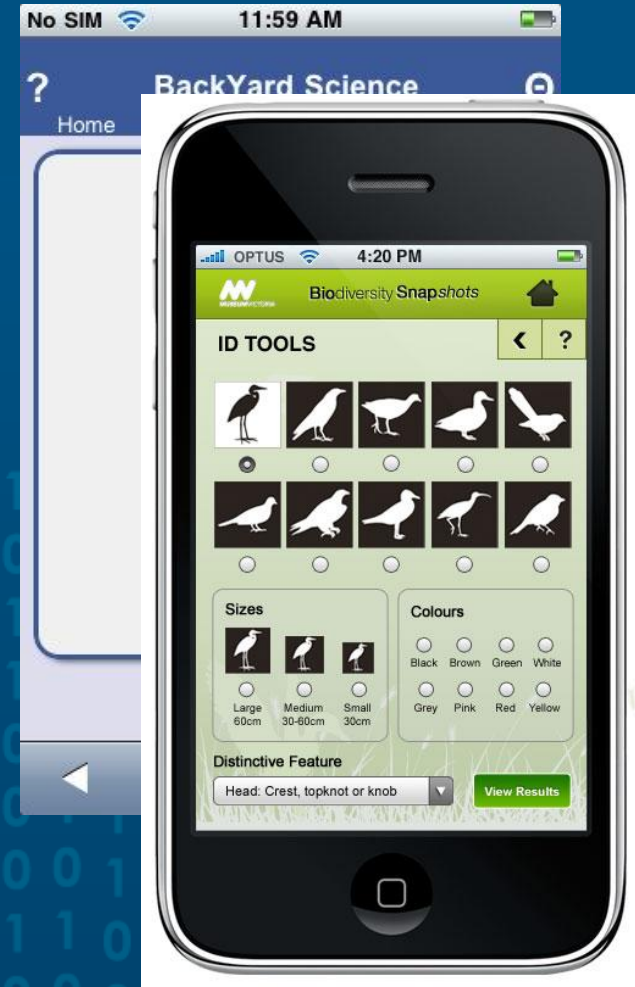




ATLAS OF LIVING AUSTRALIA

Where is the spatial?

- Using spatial data and interfaces throughout the entire project
- Extension of the Climatewatch code base – more generic
- Includes mobile devices – platform independent





ATLAS OF LIVING AUSTRALIA

Results

- Similar to Climatewatch – getting the public interested, and creating links to researchers

- Citizen science portals



- Open source software
- freely available



- Will continue to be developed throughout ALA – to 2012





SPATIAL CITIZENS

How is Citizen Science and Spatial linked?

- Through “mass” spatial tools/services like Google Maps, the public is more spatially aware

The image displays two browser windows side-by-side. The left window is Google Maps showing an aerial view of Curtin University in Perth, Australia, with various search results for the university listed on the left. The right window is the 'Carnaby Tracker' website, which features a map of Perth and its surrounding areas with numerous red location pins indicating specific sites. The website header includes 'THE UNIVERSITY OF WESTERN AUSTRALIA' and 'SCHOOL OF COMPUTER SCIENCE AND SOFTWARE ENGINEERING'.

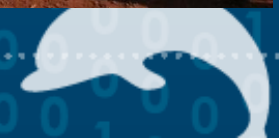




SPATIAL CITIZENS

How is Citizen Science and Spatial linked?

- Observations made have spatial component
- Environmental community is no different – just different questions
- Typically have many more motivated citizens





SUMMARY

Thoughts on the future...

- More citizen science projects and programs coming on-line
- Many of which are asking for spatial components “just like Google”
- Consolidate with existing tools, and go open source
- Consider the currency of citizen science - social capital





SUMMARY

Spatially enabled citizens...

- Could mean:
 - more science
 - more demand for spatial
 - more people involved in spatial
 - better outcomes for science and for citizens





QUESTIONS?

Questions? Comments?

- Keep in touch via our web site, blog, news, Twitter
- Contact Piers directly:

piers@gaiaresources.com.au

Office: 92277309

Mobile: 0411 754 006

www.gaiaresources.com.au

